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December 16, 2002

Ex Parte

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th H Street, SW, Portals
Washington, DC 20554

Re: Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, CC Docket No. 01-338; Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98; Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket No. 98-147; Regulatory Review Requirements for Incumbent LEC Broadband Telecommunications Services, CC Docket No. 01-337; and Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities, WC Docket No. 02-33

Dear Ms. Dortch:

On Friday, December 13, 2002, D. May, S. Randolph, A. Trinchese, E. Shakin and M. Wegleitner of Verizon met with W. Maher, M. Carey, T. Navin, J. Carlisle, R. Tanner, B. Olson and S. Bergmann of the Wireline Competition Bureau to discuss advance services in the above proceedings. The handouts used in the meeting are attached. Please let me know if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Ann D. Berkowitz".

Attachment

cc: W. Maher
J. Carlisle
M. Carey
B. Olson
T. Navin
R. Tanner
S. Bergmann



Triennial Review – Advanced Services

Emerging Technologies that support Broadband Advanced Services...

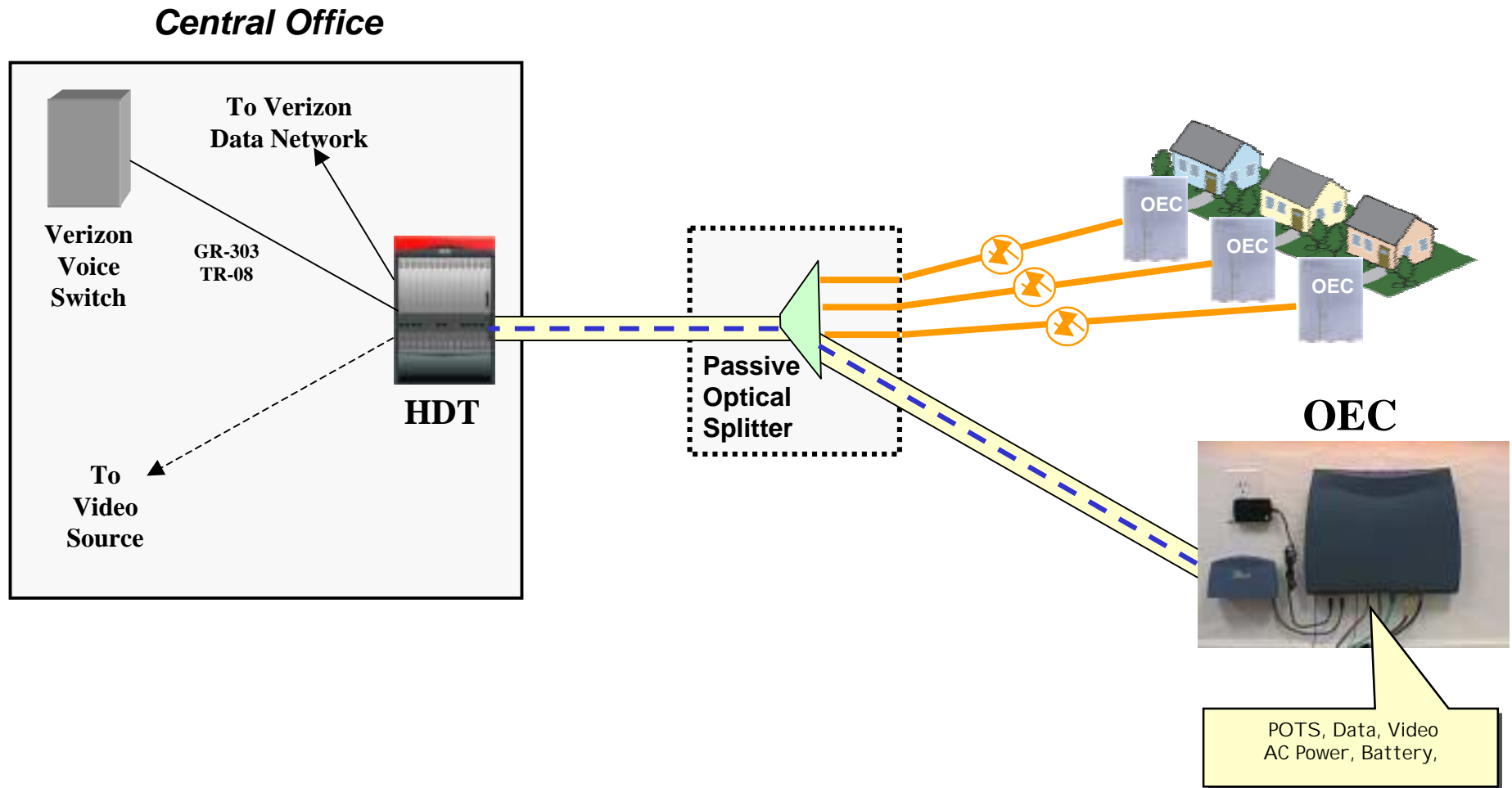
- Fiber to the Home
- Business Passive Optical Networks
- Converged Access Services
- SONET Access Rings
- Broadband Fixed Wireless

Emerging Technology Applications



- Efficiency is gained by integration of voice, data and other broadband services
- Service interface at the customer premises is evolving to match broadband applications (e.g. Ethernet)
- Network equipment at the central office is designed for aggregation of traffic and efficient routing to service platforms
- Emerging services can potentially be supported by numerous access technologies
- New access technologies will require new investments – common for all carriers

Fiber-to-the-Home Architecture

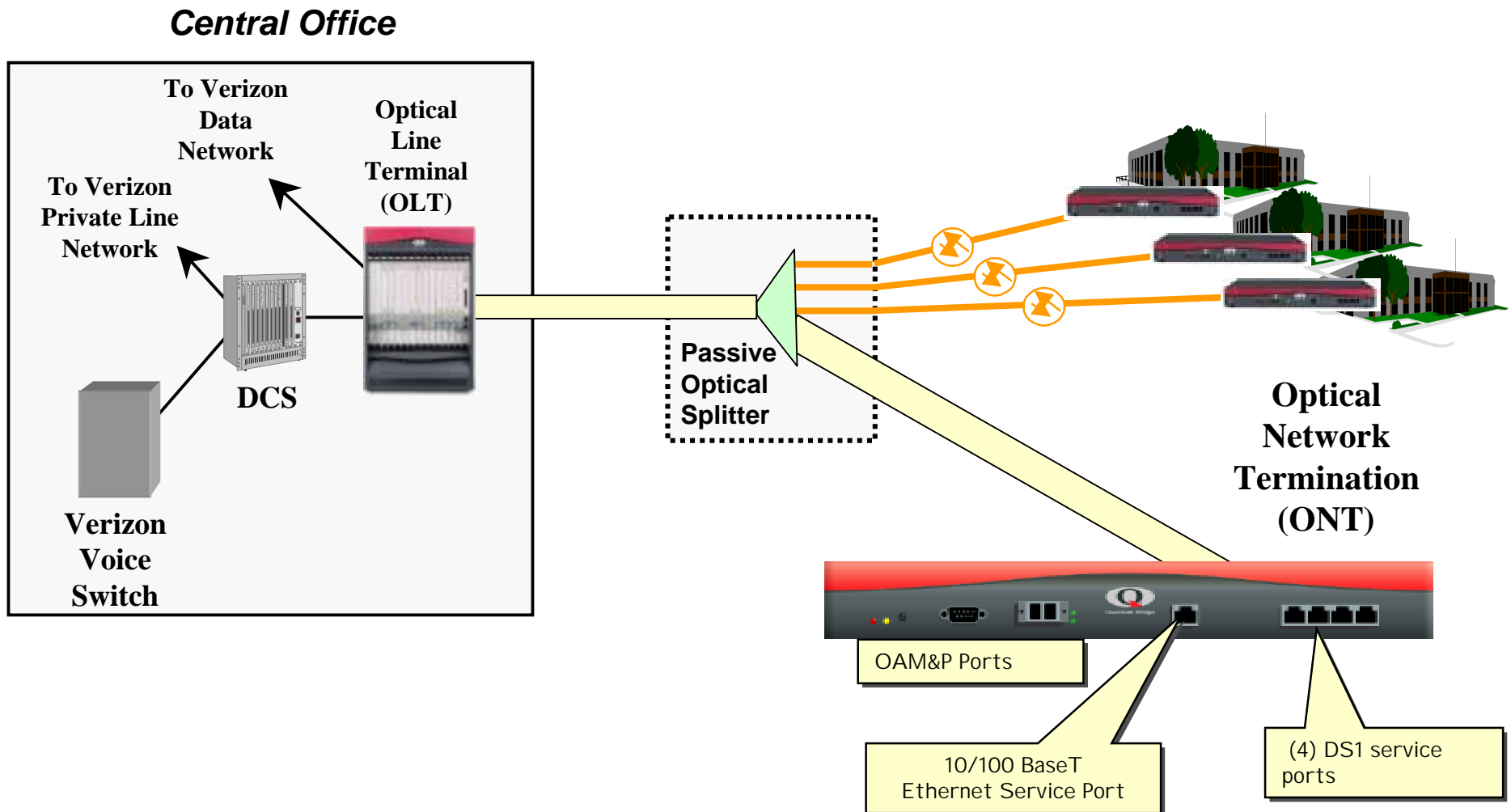


Fiber-to-the-Home Architecture



- Economics are based on the use of shared fiber and passive optics in the access network
- Dedicated Optical-to-Electrical Converter (OEC) required at customer premises to terminate fiber and provide service interface(s)
- Alternate carrier narrowband access would require overbuilding with Universal Channel Bank capability
- Alternate carrier data access would require addition of router(s) in the central office
- Fiber-to-the-Home is focused on the residential mass market
 - Economics would be heavily influenced by the cost of any additional electronics (at either end) or fiber infrastructure

Business PON (BPON) Architecture

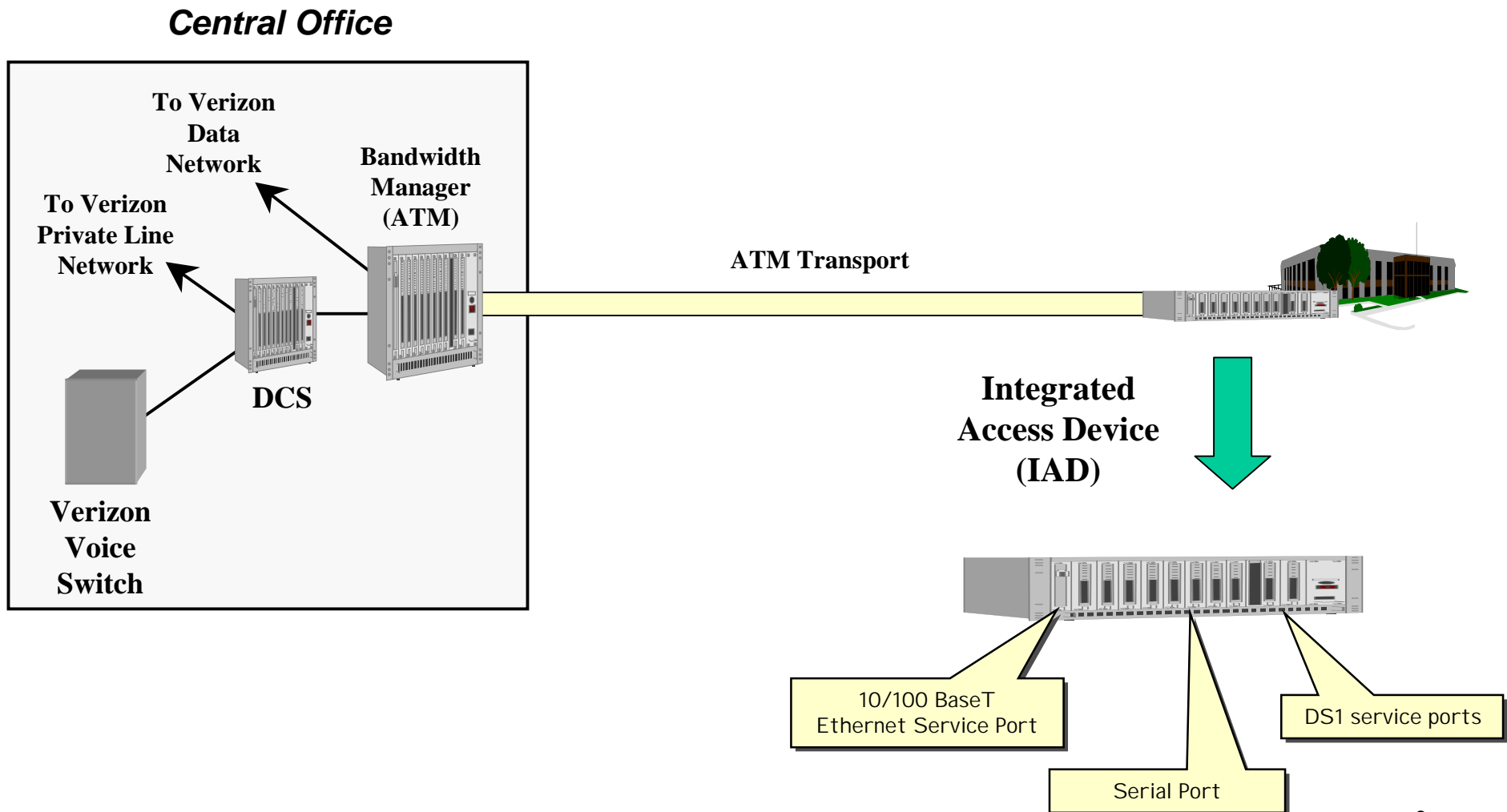


BPON Architecture



- BPON is designed for the small to medium business market
- Like FTTH, economics are based on the use of shared fiber and passive optics in the access network
- The placement of passive optical splitters is determined by the geographic area and customers served by the BPON
- End User interfaces are typically DS1 and Ethernet to match customer requirements
- OLT device in central office is designed to terminate fiber and efficiently sort traffic for hand-off to service platforms
- BPONS are not inherently designed to provide access to individual voice channels

Converged Access (CAS) Architecture

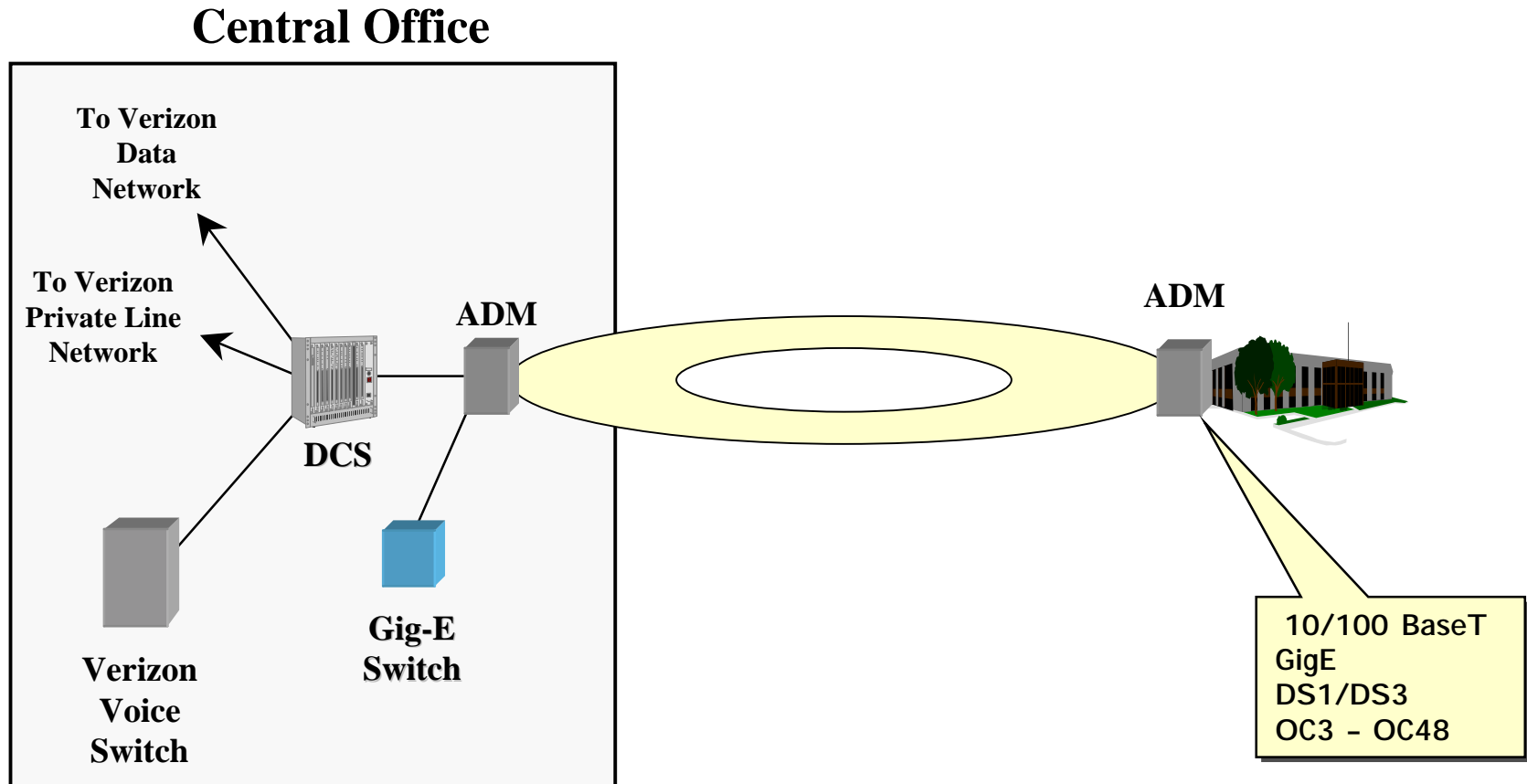


CAS Architecture



- CAS is designed for the medium to large business market
- Major driver is integration of voice and data services via Integrated Access Device (IAD) at customer location
- Many IADs provide only DS1 and higher speed interface(s)
- ATM channel between customer and central office can be delivered over a variety of transmission facilities
- Bandwidth Manager in central office receives traffic from multiple IADs, sorts it and provides high-speed handoff to service platforms
- Like BPONs, many CAS arrangements are not inherently designed to provide access to individual voice channels

SONET Ring Architecture

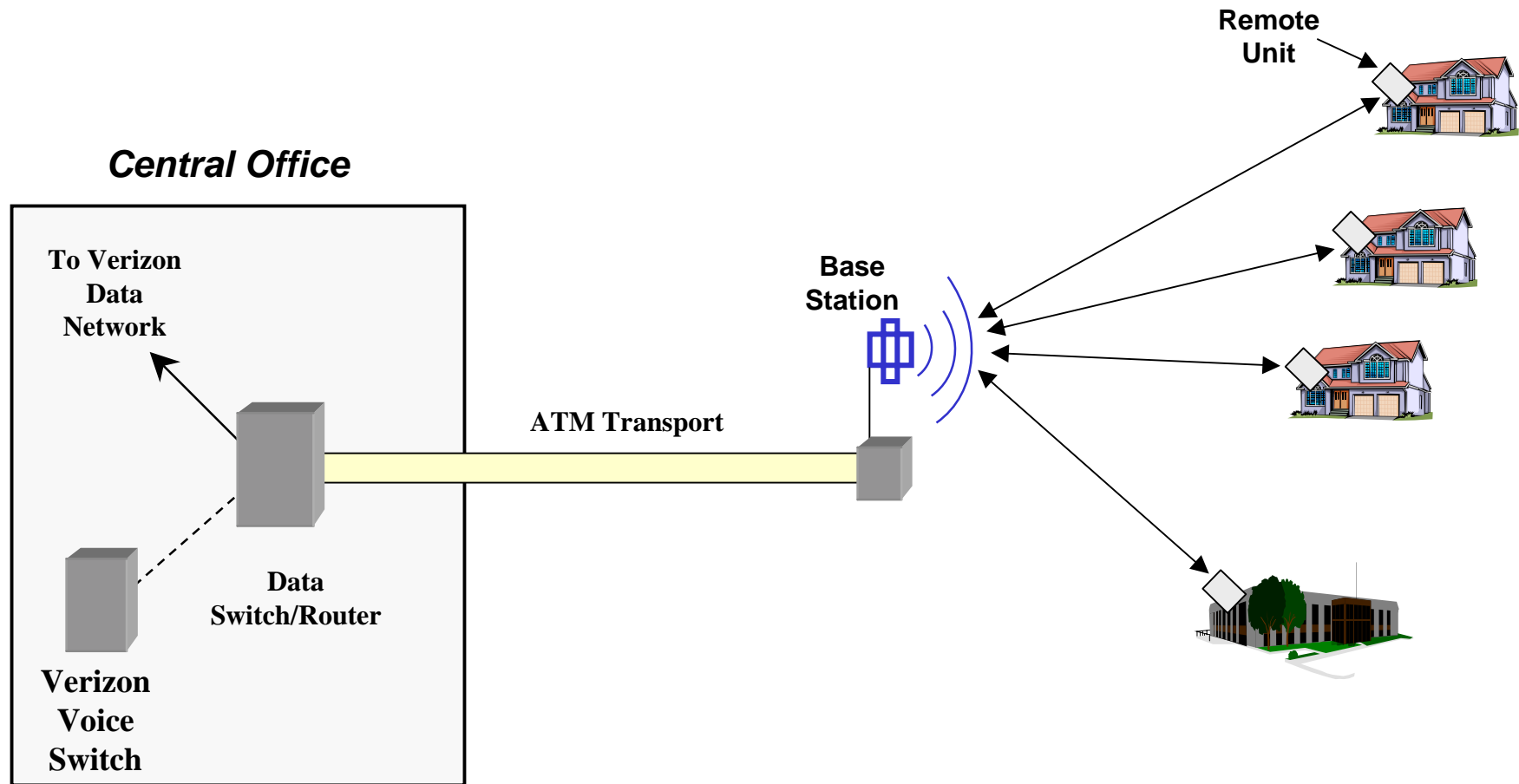


SONET Ring Architecture



- SONET services are designed for the highly competitive large business environment
- SONET Rings deliver survivable high-speed services between the customer location and central office or between multiple customer locations
- Applications are evolving from traditional DS1/DS3, OC-N services to new interfaces (e.g. Gigabit Ethernet, DWDM)
- SONET Rings are not typically deployed or designed to deliver DS0 level services (i.e. SONET standards are built around DS1 and higher speed services)
- Access to individual channels or multiple carriers would require layering of equipment at customer locations and central offices

Broadband Fixed Wireless Architecture



Broadband Fixed Wireless Architecture



- Primarily focused on delivery of high speed data services, but can do voice as well
- Base Station communicates to remote units via airwaves and typically connects to central office over fiber transport
- Fixed Broadband Wireless is proprietary (between Base Station and Remote Unit)
 - Offers little opportunity for alternate carrier access to remote unit
- Idea is to provide broadband services in cost effective manner to areas not currently served
- Technology is easily available to all potential market entrants

Emerging Technologies Summary



- In some current technology arrangements, such as UNE loops provisioned over DLC, work arounds such as Universal Channel Banks have been provided to access voice channels
- The majority of technologies described here require new investments and are available to all carriers
- Deployment decisions for these carriers must be driven by cost efficiency and marketing opportunity
- Forcing incumbents to provide access to advanced access technologies at/below cost will inevitably impact deployment decisions

Conclusions



The Commission should adopt a policy that encourages market-driven broadband deployment and innovation...

- Any such policy must consider the evolving state of technology
- Expanding narrowband unbundling requirements or applying classic regulation to evolving broadband technologies will encounter technology limitations, and stifle innovation, investment and deployment
- The record and competitive conditions are ripe for dealing with this issue